

Inventor search

WHITE 09/857,572

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(FILE 'HOME' ENTERED AT 10:07:38 ON 23 JUL 2003)

FILE 'HCAPLUS' ENTERED AT 10:07:53 ON 23 JUL 2003

E O BRIEN J/AU
 L1 1459 S O BRIEN J?/AU
 L2 42 S L1 AND FIBER
 L3 2 S L2 AND POLYSACCH?
 SELECT RN L3 1-2

FILE 'REGISTRY' ENTERED AT 10:09:26 ON 23 JUL 2003

L4 2 S E13-14

FILE 'HCAPLUS' ENTERED AT 10:09:51 ON 23 JUL 2003

L5 1 S L3 AND L4
 L6 2 S L3 OR L5

=> d ibib abs hitstr ind 1-2

L6 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2000:513865 HCAPLUS
 DOCUMENT NUMBER: 133:121604
 TITLE: **Polysaccharide fibers** and their
 production
 INVENTOR(S): **O'Brien, John P.**
 PATENT ASSIGNEE(S): E.I. Du Pont De Nemours and Company, USA
 SOURCE: PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000043580	A1	20000727	WO 2000-US1160	20000119
W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1165867	A1	20020102	EP 2000-903335	20000119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002535501	T2	20021022	JP 2000-594981	20000119
PRIORITY APPLN. INFO.: US 1999-117209P P 19990125 WO 2000-US1160 W 20000119				

AB **Fibers** made of .alpha.-(1.fwdarw.3) **polysaccharides**
 (having .gtoreq.50% hexose units) have cotton-like properties but can be
 produced as continuous filaments on a year-round basis. The
fibers are useful in textile applications. The
polysaccharides are dissolved in a solvent to form a liq. cryst.
 soln., from which **fibers** can be spun. Thus,
 poly(.alpha.-(1.fwdarw.3)-D-glucose) (isolated from cultured cells) was
 acetylated and dissolved in solvent soln. of trifluoroacetic acid/H₂O, and
 extruded from a syringe into a MeOH soln. bath to give **fibers**,
 having tenacity 4.2 g/denier and elongation 17.5%.

IT 9051-95-0 285568-03-8
 RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)

(**fiber; polysaccharide fibers** spun from a
 liq. cryst. soln.)

RN 9051-95-0 HCAPLUS

CN .alpha.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 285568-03-8 HCAPLUS

CN .alpha.-D-Glucan, (1.fwdarw.3)-, acetate (9CI) (CA INDEX NAME)

CM 1

CRN 9051-95-0

CMF Unspecified

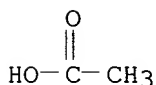
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-19-7

CMF C2 H4 O2



IC ICM D01F009-00

ICS C08L005-00; C12P019-04

CC 40-2 (Textiles and Fibers)

Section cross-reference(s): 33

ST poly glucose **fiber** soln spun; **polysaccharide**

fiber soln spun

IT Synthetic polymeric **fibers**, uses

RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)

(**polysaccharides; polysaccharide fibers**

spun from a liq. cryst. soln.)

IT 9051-95-0 285568-03-8

RL: PRP (Properties); TEM (Technical or engineered material use); USES
 (Uses)

(**fiber; polysaccharide fibers** spun from a
 liq. cryst. soln.)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:327966 HCAPLUS

TITLE: Pushing the property envelope of
polysaccharide fibers.

AUTHOR(S): O'Brien, John P.

CORPORATE SOURCE: Experimental Station, Dupont CR&D, Wilmington, DE,
 19880, USA

SOURCE: Book of Abstracts, 219th ACS National Meeting, San
 Francisco, CA, March 26-30, 2000 (2000), CELL-107.
 American Chemical Society: Washington, D. C.

CODEN: 69CLAC

DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English

AB The ability to approach theor. predicted mech. strength levels in fibrous materials is dependent upon achieving high mol. orientation along the tensile direction of the material. Liq. cryst. ordering offers significant advantages in this regard and is a key element in the technol. for selected high performance **fibers** including Dupont's Kevlar* aramid. Cellulose and certain of its derivs. possess sufficient chain rigidity such that phase sepn. to ordered liq. cryst. domains occurs under the proper conditions. Technol. developed in our labs. has shown that such solns. can be processed into **fibers** with mech. strength and modulus that are significantly greater than those of any previously known man-made or natural cellulosic **fibers**. This paper will highlight aspects of the process and discuss the synthesis of the polymer precursors and the characterization of these novel cellulosic **fibers**. *Dupont Registered Trademark.